

CSPPro Data Entry User's Guide


Version 2.3

International Programs Center
U.S. Census Bureau
Washington DC 20233-8860

Phone: 1-301-763-1451
Fax: 1-301-457-3033
E-mail: CSPPro@census.gov

24 January 2003

Table of Contents

Data Entry User's Guide	1
Introduction to Data Entry 	1
Data Entry Concepts	1
Modes of Operation.....	1
Cases, Levels, and Nodes	2
Forms	2
Fields.....	3
Repeating Groups of Fields	3
Persistent Fields.....	4
Field Colors	4
How to	5
Open Applications and Data Files.....	5
Open an Application	5
Open a Data File	5
Define File Associations	6
Add Cases.....	7
Begin Adding Cases	7
Enter Data.....	7
Move Around a Case in Add Mode	7
Finish a Case.....	9
Modify Cases	9
Begin Modifying Cases.....	9
Select a Case	10
Move Between Cases.....	10
Insert a Case	10
Delete a Case.....	10
Change Case Ids.....	10
Go to a Field	10
Insert a Group Occurrence	11
Delete a Group Occurrence.....	11
Select a Node	11
Add a Node.....	11
Insert a Node	11
Delete a Node.....	12
Save a Case	12
Move Around a Case in Modify Mode	12
Edit Interactively	13
Verify Cases.....	14
Begin Verifying Cases	14
Verify Data	14
Show Fields	14
Active Keys in Verify Mode.....	14
Stop or Pause Data Entry	15
Stop Data Entry	15
Pause Data Entry	15
Assess Performance.....	16
View Operator Statistics	16
Understand Operator Statistics	16

Change Views and Get Help.....	17
Change View	17
Get Help.....	18
Files.....	18
Types of Files.....	18
Index Files (.IDX)	19
Operator Statistics Files (.LOG).....	19
Status Files (.STS)	20
Summaries	20
Menu Summary.....	20
Toolbar Summary.....	21
Keys Summary.....	22

Data Entry User's Guide

Introduction to Data Entry

The **CSEntry** module allows the user to create one or more data files with a data entry application file (**.ent**).

Data Entry Concepts

- Modes of operation
- Cases, levels and nodes
- Forms
- Fields
- Repeating groups of fields
- Persistent Fields
- Field colors

How to ...

- Open applications and data files
- Add cases
- Modify cases
- Verify cases
- Stop or pause data entry
- Assess performance
- Get Help

Files

- Types of files
- Index files (.IDX)
- Operator statistics files (.LOG)
- Status files (.STS)

Summaries

- Menu
- Toolbar
- Keys

Data Entry Concepts

Modes of Operation

CSEntry keeps track of sessions for the operator statistics.

Each time you begin to **Add** cases, you begin a session. The session ends when you stop Adding cases. Similarly, each time you begin to **Modify** or **Verify** cases, then stop, you complete a session.

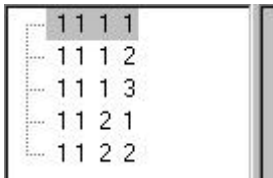
CSEntry keeps track of the time the user spends keying in each session. CSEntry uses this time to compute keystrokes per hour. You can pause the timer if, for example, you need to leave the computer for a few minutes but do not want to end the session.

Cases, Levels, and Nodes

A case is the primary unit of data in the data file. A case usually corresponds to a questionnaire.

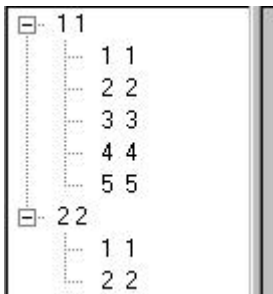
Some complex applications have a hierarchical set of questionnaires. For example, the main questionnaire may consist of a household roster and other household information, and there may be a separate questionnaire for each woman in the household. The data entry application may then contain two **levels** - household and woman. The set of forms corresponding to the household make up level one. The set of forms corresponding to the woman make up level two. Each case would consist of level one and a variable number of **level occurrences** for level two. Level occurrences are also called **nodes**. Most applications consist of a single level.

The tree on the left side of the screen shows the cases in the data file. In a single level application, the tree simply shows the IDs for each case. For example, if the application has four ID items, the tree might look like:



There are five cases in this file. The first case has the value "1" for all four ID items, the second case has "1" for the first three ID items, and "2" for the fourth ID item, etc.

In a multi-level application, the tree shows the nodes, or level occurrences, for each case. In the following example, both level one and level two have two ID items. The first case has five level two nodes. The second case has two level two nodes.



CSEntry indexes the data file by the case (level one) ID fields. You cannot have two cases with the same IDs in the same data file. However, level occurrences may share the same IDs.

When you are in Add or Verify mode you must always complete a case (or cancel it) before you can stop. Similarly, in Modify mode you must always complete your changes (or cancel them) before you can stop.

Forms

A form appears on the screen when you Add, Modify, or Verify cases. A form may contain fields, text and boxes. Forms may be larger than the actual screen area, in which case the form will scroll automatically as the cursor moves from field to field. Data entry applications usually consist of several forms, as created and defined by the application designer. The designer also defines the order in which forms will appear in CSEntry.

Fields

A field is the basic element of a data entry form into which the operator keys data. During data entry the cursor moves from one field to the next, according to the order and rules defined by the application designer. Fields are shown on the form as boxes with 'tic marks' to show how many digits may be keyed.

Some fields cannot be entered. They may contain previously-keyed data or calculated values. These fields are defined as **Protected** or **Mirror** fields by the application designer. Such fields appear as gray boxes on the screen.

Repeating Groups of Fields

A multiple group is a set of fields that repeats more than once. There are two kinds of multiple groups:

Rosters

	Line number	Relationship	Sex	Age
1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
3	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Each line of the roster (usually rows) contains several fields (usually columns). A line of a roster is a group occurrence. The group repeats as many times as there are lines. In the example above the group contains 4 fields and 3 occurrences.

- Use the slash key on the numeric keypad to jump to the beginning of the next line (only in **operator controlled** applications).
- Use the Ctrl+/ key to jump out of the roster entirely (only in **operator controlled** applications).

Forms which repeat

Sometimes the same blank form keeps appearing, each time you fill in the fields. In this case, the form itself is a group occurrence.

- Use the slash key on the numeric keypad to jump to the first field on the next blank form (only in **operator controlled** applications).
- Use the Ctrl+/ key to end the repeating forms (only in **operator controlled** applications).

Persistent Fields

The application designer may define ID fields to be "persistent". This means they take the value from the previous case in the data file as their default. Persistent fields are typically used for geographic IDs that change very seldom from one case to the next. These fields are shown as light gray boxes on the form. The operator can change persistent fields by using the F7 key.

Field Colors

CSEntry uses colors to indicate the status of each field.

White

The field has not been entered yet. If you see data in this field, this means you have entered this field, but you have gone backward and entered a different value for a previous field which caused the underlying logic to make you skip over the white field. In this case, the white field will be written as blank to the data file.

Green

The field has been entered. The field's postproc logic has been executed. The field's value, as you see it on the screen, will be written to the data file.

Yellow

This color only appears in **operator controlled** applications. The field has been entered but you have then gone backward. The field's value, as you see it, will be written to the data file. Yellow shows you the "high-water mark"; how far forward you have reached in the case.

Gray

The field cannot be entered. The application designer has defined it as either "protected" or "mirror".

Light Gray

The field is "persistent". It takes its value from the previous case. You can change the value by using the F7 key.


In the following example, "Province" and "District" are persistent (their values were carried over from the previous case). The operator keyed "HH no." and "Line number", then backed up to "HH No." The "PY Income" field is protected.

Province	2
District	1
HH no.	14
Line number	
	2
CY Income	PY Income
	100

How to ...

Open Applications and Data Files

Open an Application

- 1 Click  on the toolbar; or press **Ctrl+O**; or from the **File** menu, select **Open Application**.
- 2 Select from the **Files of type:** at the bottom of the dialog box. In CSEntry you can open either an application or a PFF file.
- 3 If you opened an application file, select the name of the data file(s). (This is not necessary if you opened a PFF file).
- 4 Enter the Operator ID.

Note: If you already have another application open, it will be closed.

CSEntry accepts one command line parameter. It may be either of the following types:


- ENT file. This is the application file. CSEntry will prompt for the data file(s).
- APL file. This is the application file used in CSPro 2.0. It is supported in CSPro 2.2 for backward compatibility. CSEntry will prompt for the data file(s).
- PFF file. CSEntry will open both the application and the data file(s).

In any case, you must specify the file extension. Examples:

```
csentry mysurvey.ent
csentry mysurvey.apl
csentry mysurvey.pff
```

Open a Data File

If an application has been opened, you may open a datafile as follows:

- 1 Click  on the toolbar; or press **Ctrl+D**; or from the **File** menu, select **Open Data File**.

- 2 Select the data file you want to open. If you want to create a new data file, enter a new name.
- 3 Press **Open**.
- 4 Enter your operator id (if required).

Notes:

- You can create a new data file simply by typing in a new name.
- You can only work on one data file at a time. If you open a new data file, the previous one will be closed.
- If you want to change the data entry application, you must first open the application.

- CSEntry uses the operator ID in the operator statistics, which are kept in the .LOG file.
- The operator ID may be up to 32 characters long and may include any character, including embedded spaces.
- CSEntry has no means to validate operator IDs that are typed.
- Some applications do not require you to enter the operator id.

See also: Types of Files

Define File Associations

Most data entry applications read and write data only to the primary data file. In this case, CSEntry uses the standard File Open dialog box for the operator to enter the file name.

However, some applications use more files. For example, there may be one or more external lookup files. In addition, usage of the **write** and **impute** commands require file associations to be supplied.

So you will always see the "Define File Associations" dialog box—what will vary is what is being asked of you. The following shows the order in which files will be solicited from you, and why:

Input Data File: This is the file you will be creating, modifying, or verifying. Please note that only one data file can be named, and you must supply it, as CSEntry can not run without it.


External File (dict_name): For each lookup file your application uses, you must supply the datafile to which the lookup dictionary refers. CSEntry will not allow you to run your application without naming this file. The name in parenthesis is the unique (internal) dictionary name. A separate line entry will be given for each lookup file attached to your application.

Write File: If your program includes one or more **write** functions, CSEntry will ask you for the file to write them all to. If you fail to name a file, all **write** function text will be placed in the listing file.

Impute Freq File: If your program includes one or more **impute** functions, CSBatch will ask you for the file to save these imputations to. If you do not provide this file, CSBatch will run on your data, but you will receive an error message about the expected file being missing.

Add Cases

Begin Adding Cases

Click  on the toolbar (or press **Ctrl+A**) to begin adding cases to the end of the data file. This will begin a new **Add mode** session. You may add as many cases as you like. The session will end when you finish a case (F12) and then press **Ctrl+S** (the latter signaling to CSPro that you wish to stop adding cases).

You may switch directly from Modify Mode to **Add mode**. However, if you have made any changes to the current case, you must save them before switching over, else you will lose your corrections. (You may need to save the case first.) It is safer, however, to explicitly stop modifying before switching.

Enter Data

CSEntry will automatically show the first form in the application when you begin adding a case. The cursor will appear in the first field on the form, ready for you to enter data. You may be required to press the Enter key when you have finished keying data for a field, depending on your application. Otherwise, the cursor will automatically move to the next field once the current field is filled up. In any case, you can press Enter to move to the next field if the current field is not filled up. Your application may have been designed with skip logic. This means the system may move you automatically depending on the values you key and the underlying logic. You may continue to key data and move forward until the end of the case, or you may use other keys to move around a case before you finish it.

As you move from field to field, the status bar at the bottom of the screen shows you the name and occurrence number of the current field.

Move Around a Case in Add Mode

CSEntry provides special keys to move among fields and forms within a case. You can work only on one case at a time.

Previous Field (Up arrow, Shift+Tab)

These keys move to the previous field in the current case. If your application has been designed as **system controlled** type, and you arrived at the current field by way of a programmed skip, the system will move you to the field from which you skipped. Otherwise, the system will move you to the previous field on the form.

Next Field (Down arrow, Enter)

These keys move to the next field in the current case. The system obeys any skips programmed in the logic.

Previous Screen (PgUp) [**operator controlled** applications only]

This key moves to the previous screen in the current case. If the current group is multiple, but not rostered, this key moves to the beginning of the previous group occurrence. If the current group is single, this key moves to the beginning of the previous group.

Next Screen (PgDn) [operator controlled applications only]

If you have backup up to a previous screen, this key moves forward to the next screen in the current case (but not beyond the furthest point reached in the case). If the current group is multiple, but not rostered, this key moves to the beginning of the next group occurrence. If the current group is single, this key moves to the beginning of the next group.

End Group Occurrence (/ on numeric keypad) [operator controlled applications only]

If the current group is multiple, this key moves to the beginning of the next group occurrence. If the current group is single, this key moves to the beginning of the next group.

For example, if the operator has finished entering data for a person (a multiple group), he can use this key to start entering data for the next person.

End Group (Ctrl + /) [operator controlled applications only]

This key always moves to the beginning of the next group. This key is particularly useful in multiple groups.

For example, if the operator has finished entering data for all persons, he can use this key to move to the next group, even if there is room for more persons. This is an easy way get out of a roster.

Insert/Delete/Sort Group Occurrences (F3, Ctrl+F3, F4, F5)

These keys are very valuable in rosters or for forms that repeat. Use F3 to insert a group occurrence before the current occurrence or Ctrl+F3 to insert after the current occurrence. Use F4 to delete the current occurrence. The F5 key will sort the occurrences based on the values in the current field.

End Level Occurrence (F12)

In **operator controlled** applications: If the application has only one level, this key ends the case. If the application has more than one level, use this key to end the current node, and begin a new node. For example, if the first level is a mother questionnaire and the second level is a child questionnaire, pressing this key during a child questionnaire means you have finished this child and wish to start the next child

In **system controlled** applications: If you have moved backward, this key will advance you to the end of the current node, or to the "furthest point" forward you have reached, if this is in the current node. This key is very similar to the F10 key in this circumstance.

End Level (Ctrl + F12) [operator controlled applications only]

If the application has only one level, this key has no effect. If the application has more than one level, this key is used at lower levels to signal that the keyer has finished all nodes at this level.

For example, if the first level is a mother questionnaire and the second level is a child questionnaire, pressing this key during a child questionnaire means you have finished all children and wish to start a new mother.

Go To (F6)

This key allows you may to move to any field (either forward or backward). It is useful if you want to a field that is "far away"; not on the current form. You must know the name of the field to which you want to move. If the field is multiply occurring (on a roster, for example), you may also specify a specific occurrence number. If you leave the occurrence number blank the system assumes the current occurrence number. You can see the field names and occurrence numbers on the status bar at the bottom of the screen as you key data.

Previous Persistent (F7)

This key only has meaning if the application includes persistent fields. When you press this key the system will move to the first persistent field it finds, previous to the current field, and place the cursor there. If there is more than one persistent field, you may press F7 again to move again to the previous persistent field.

Advance to End (F10) [system controlled applications only]

If you have moved backward, this key will advance you to the "furthest point" forward you have reached in the case.

Skip to (+ on numeric keypad) [operator controlled applications only]

This key skips to the next field defined by the application. It is used to skip groups of fields that may all be blank because they are not required to be answered by certain respondents.

Finish a Case


Normally you finish a case when you have completed entering all the forms, at which time CSEntry asks you to accept the case. If you do, CSEntry immediately writes the case to the data file.

In **system controlled** applications the operator must enter data field by field until reaching the end of the case. There are no special keys to finish a case pre-maturely. In applications with more than one level, the application developer **MUST WRITE LOGIC** to tell CSEntry when to finish entering nodes.

In **operator controlled** applications, the operator may press F12 or Ctrl-F12 to end a case at any time.

Modify Cases

Begin Modifying Cases

Click  on the toolbar; or press **Ctrl+M**; or from the **Mode** menu, select **Modify** to begin modifying cases. This will begin a new **Modify mode** session. You may view as many cases as you like, but you may only make changes to one case at a time. The session will end when you stop modifying the current case. There are several ways to select a new case.

You may switch to **Modify mode** while in Add mode, but only if you have completed the current case. It is safer, to explicitly stop adding before switching.

Select a Case

Use any of the following methods to select a case to view and/or modify.

- Click on a case ID on the tree, then select **Modify Case**.
- Double click on a case ID on the tree.
- From the **Functions** menu, select **Find Case**; or press **Ctrl-F**. Then enter the case ID. The case ID must be entered exactly as it appears in the file.

Move Between Cases

Once you have finished modifying (or simply viewing) a case, you may move to a different case in one of the following ways:

- Click on a different case ID on the tree.
- Use the toolbar to select first, previous, next or last case in the data file.
- Use the menu to select first, previous, next or last case in the data file.
- Use the special keys to select first, previous, next or last case in the data file.

Insert a Case

- 1 Make sure you are not in Add, Modify, or Verify mode. You may need to stop (**Ctrl+S**) data entry first.
- 2 Click on the case ID on the tree on the left side of the screen.
- 3 From the menus, select **Functions**, then **Insert case**.

Delete a Case

- 1 Make sure you are not in Add, Modify, or Verify mode. You may need to stop (**Ctrl+S**) data entry first.
- 2 Click on the case ID on the tree on the left side of the screen.
- 3 From the menus, select **Functions**, then **Delete case**; or press the **Delete** key.

Change Case Ids

- 1 Select the case whose IDs you wish to change.
- 2 Switch to Modify mode.
- 3 Key in the new IDs.
- 4 Save the case.

Note: CSEntry will ensure that no two cases in the same data file have the same IDs.

Go to a Field

- 1 Enter the field name as defined in the data entry application.
- 2 Enter the field occurrence number, if the field has multiple occurrences.

A field can have multiple occurrences because it appears in a roster or because it appears on repeating forms. If the field does not have multiple occurrences or you want to go to the first occurrence, leave the field occurrence number blank.

Insert a Group Occurrence

- 1 In Add or Modify mode, position the cursor to the group occurrence before or after which you want to insert, for example a particular line on a roster.
- 2 To insert **before** the current position, press F3, or choose Functions/Insert Group Occ from the main menu.
- 3 To insert **after** the current position, press Ctrl+F3, or choose Functions/Insert Group Occ After from the main menu.

Note: You can insert an occurrence to any multiple group whether the group is a roster or a form that repeats.

See also: Repeating Groups of Fields

Delete a Group Occurrence

- 1 In Add or Modify mode, position the cursor to the group occurrence you want to delete, for example a particular line on a roster.
- 2 Press F4, or choose Functions/Delete Group Occ from the main menu.

Note: You can delete an occurrence from any multiple group whether the group is a roster or a form that repeats.

See also: Repeating Groups of Fields

Select a Node

This applies only to complex applications that have more than one level.

- 1 Make sure you are not in Add, Modify, or Verify mode. You may need to stop data entry first.
- 2 Expand the tree for the case which contains the node.
- 3 Double click on the node ID on the tree, or single click on the node ID and select Modify Case.

Add a Node

This applies only to complex applications that have more than one level.

- 1 Make sure you are not in Add, Modify, or Verify mode. You may need to stop data entry first.
- 2 Click on the case ID on the tree for the case to which you want to add a node.
- 3 Right click and select Add Node, or select Functions/Add Node from the main menu.

Insert a Node

This applies only to complex applications that have more than one level.

- 1 Make sure you are not in Add, Modify, or Verify mode. You may need to stop data entry first.
- 2 Expand the tree for the case in which you want to insert a node.
- 3 Click on the node before which you want to insert.
- 4 Right click and select Insert Node, or select Functions/Insert Node from the main menu.

Delete a Node

This applies only to complex applications that have more than one level.

- 1 Make sure you are not in Add, Modify, or Verify mode. You may need to stop data entry first.
- 2 Expand the tree for the case in which you want to insert a node.
- 3 Click on the node you want to delete.
- 4 Right click and select Delete Node, or Select Functions/Delete Node from the main menu.

Save a Case

Saving a case will write the contents of the current case to the data file, including any changes you have made. This includes all records, of all types, into which data have been entered. If a record type has been declared **Required** [in the data dictionary], and no data were entered for this record type, a blank record of the required type will be written as part of the questionnaire, and a message informing you of this action will be issued. There is no way to suppress this message. Records are written to the output file in the order in which the record types were defined in the data dictionary.

If the application is defined as **operator controlled**, you may use the **F12** or **Ctrl-F12** keys to save a case. If the application is one level (most common), use either key. If the application is more than one level, use the **Ctrl-F12** key.

If the application is defined as **system controlled** type, you may use the **F10** key (Advance to End) to save a case. This key will execute all the procedures from the current field through the end of the case. The application may contain underlying logic which stops you at a certain point and displays a message. The system will only save the case if there are no such messages.

The following is true for both operator and system controlled mode:

- if you are in **add** mode, saving the case will keep you in add mode, allowing the operator to continue adding cases
- if you are in **modify** mode, saving the case will terminate modify mode—the operator would have to select a new case and drop back into modify mode to continue

Move Around a Case in Modify Mode

Moving around a case in Modify Mode is very similar to moving around in Add Mode. However there are some differences:

Next Screen (PgDn) [**operator controlled** applications only]

This key always moves to the next screen in the current case. In Add mode, this key is only in effect if you have backed up to a previous screen.

End Level Occurrence (F12)

Operator controlled applications: If the application has only one level, this key saves the case, including any changes you have made. If the application has more than one level, this key has no effect. (Use Ctrl-F12 to save the case in this situation.)

System controlled applications: This key advances to the beginning of the next node.

End Level (Ctrl + F12)) [**operator controlled** applications only]

This key saves the case, including any changes you have made.

Advance to End (F10) [**system controlled** applications only]

This key will attempt to save the case. It will execute all the procedures from the current field through the end of the case. The application may contain underlying logic which stops you at a certain point and displays a message. The system will only save the case if there are no such messages.

Edit Interactively

You can search through the data file using your data entry logic to find errors or unexpected conditions and display the data entry form containing each error ready for modification. This is a very convenient way to make corrections to survey data, provided the data volume is not too large, and the operator is knowledgeable enough to make the necessary corrections.

Interactive editing is performed after the data have already been entered. You can use the same programmed logic that was in effect during data entry to find problems that were left unresolved by the original keyer, or you can use different logic to check for other conditions.


To perform interactive editing:

- 1 Open the data file, using the data entry application that contains the logic you want to check.
- 2 Go to Modify mode, starting on the first case you wish to check (usually the first case in the data file).
- 3 From the **Functions** menu, select **Interactive Edit**; or press **F11**.
- 4 Select whether to stop on messages, out of range conditions, or both.

CSEntry will advance from wherever the cursor is currently positioned, field by field, from the current case through the end of the data file, executing whatever procedures are included in the application's logic. If you have chosen to stop on messages, CSEntry will stop whenever the application logic hits an "errmsg" command. If you have chosen to stop on out of range, CSEntry will stop whenever a field value is other than what is defined in it's first value set in the dictionary. (If there are no value sets for a given field, it will never be considered out of range.) When CSEntry stops, it shows the programmed or out of range message, then places you on the appropriate form. You can make changes to the data if you like, and press F11 to continue through the data file.

Verify Cases

Begin Verifying Cases

Click  on the toolbar; from the **Mode** menu, select **Verify**; or press **Ctrl+V** to begin verifying cases. This will begin a new **Verify mode** session. CSEntry keeps track of the last case that was verified, and positions you automatically to the next case to verify. You may verify as many cases as you like until you reach the end of the data file.

You can see how many cases have been verified by viewing operator statistics. This information is derived from the .STS file. You can reset all cases in a data file to "not verified" by deleting this file. Do so only with extreme caution.

Verify Data

When you verify a case, you key the case a second time as if you were in Add mode. Even though there is already data in the data file, CSEntry does not show this to you. All fields on the current form start out blank. Each time you key a field, the system compares the value you keyed with the value in the data file. If these two values match, you move to the next field. If the values do not match, you get a message telling you so. When this happens, simply rekey the field. One of the following situations will occur:

- The second value you key matches the value in the data file. The system assumes your first value is in error and moves to the next field. There will be no change to the data file for this field.tem
- The second value you key matches the first value you keyed. The system assumes the value in the data file is in error and moves to the next field. The new value, which you keyed twice, will replace the original value in the data file.
- The second value you key matches neither the value in the data file nor the first value you keyed. The system will throw away the first value you keyed, show you the mismatch message and wait for you to rekey the field again.

Show Fields

Sometimes you need to see the values in the data file on the screen. This is particularly useful if you are unsure which case you are verifying or exactly where in the case you are. You can use the **Ctrl+F2** key to do this. When you press the Ctrl+F2 key you will see the values for all the fields on the current form. You must press Ctrl+F2 again to resume verifying.

Active Keys in Verify Mode

Moving around a case in Verify mode is much more restricted than in Add or Modify mode. However, you can use the following keys:

Previous Field (Up arrow, Shift+Tab)

Next Field (Down arrow, Enter)

End Group Occurrence (/ on numeric keypad) [**operator controlled** applications only]

End Group (Ctrl + /) [**operator controlled** applications only]

End Level Occurrence (F12)

End Level (Ctrl + F12) [**operator controlled** applications only]

Previous Persistent (F7)

Advance to End (F10) [**system controlled** applications only]

Stop or Pause Data Entry

Stop Data Entry

Pressing **Ctrl+S** will end the current **Add** or **Modify mode** session, as well as make an entry to the operator statistics .LOG file. If you are not in Add or Modify mode, this function has no effect.

From Add Mode:

- If you are the beginning of a case, the session will end immediately.
- If you have started, but not completed, a case, you must either cancel the current case or complete the case. If you cancel the case, you will lose all data keyed for that case.

From Modify Mode:

- If you have not made any changes to the current case, the session will end immediately
- If you have made changes to the current case, you must either cancel the changes or save the case.

From Verify Mode:

- If you are at the beginning of a case, the session will end immediately
- If you have started, but not completed, a case, you must either cancel the current case or complete the case. If you cancel the case, it will not be considered verified and any changes you made to the case will be lost.


Pause Data Entry

Whenever the operator is in **Add**, **Modify**, or **Verify** mode, a timer is running. This timer is used to generate the operator statistics for that session. **Pause (Ctrl+P)** stops the timer until the operator either presses Ctrl+P again, or resumes typing.

The timer affects the calculation of keystrokes/hour. If you need to leave the computer for a few minutes, but are in the middle of a session, you should pause data entry so that time will not be counted against you.

Assess Performance

View Operator Statistics

Click  on the tool bar; from the **View** menu, select **Operator Statistics**; or press **Ctrl+T**.

CSEntry shows the number of cases in the data file and the number of cases which have been verified. CSEntry also provides information about each operator who has worked on the current data file. This information is stored in the LOG file.

Each line represents one data entry session.

Clicking in the gray heading area for any column will sort the information in that column. Successive clicking of the column heading toggles that column's data between an ascending or descending sort.

Understand Operator Statistics

- **Mode**

Indicates the mode (**Add**, **Modify**, or **Verify**) in which the operator was working during the session. Every time an operator works on the current file, in any mode, an entry is created for that session.

- **Operator ID**

Displays the personal ID assigned to the operator of the relevant session. To ensure reliable statistics, this ID must be unique for each data entry operator.

- **Start Date**

Indicates the date on which the session began. Note: The date format is DD/MM/YYYY (i.e., Day/Month/Year).

- **Start Time**

Indicates the time at which the session began. Note: The system uses a 24-hr clock, so 2:30 pm will appear as 14:30.

- **Total Elapsed Time**

Indicates the total time elapsed during the session in question. The format shown is HH:MM (i.e., hours:minutes).

- **Pause Time**

Indicates the total amount of time during the session in which the clock was suspended. The format shown is HH:MM (i.e., hours:minutes).

- **Total Cases**

Indicates the total number of cases that the operator added (if in **Add** mode), modified (if in **Modify** mode), or verified (if in **Verify** mode) during the session.

- **Total Records**

Indicates the total number of records, of all types, that the operator added (if in **Add Mode**), modified (if in **Modify** mode), or verified (if in **Verify** mode) during the session.

- **Total Keystrokes/Hr**

Indicates the operator's keying rate during the relevant session. The total number of keystrokes is divided by the duration of the session, excluding the pause time, and displayed as an integer value.

- **Errors/1000 Keystrokes**

Is the result of a two-step calculation: the total number of keying errors (an internal counter maintained by the system but not displayed) is multiplied by 1000; the result of this operation is divided by the total number of keystrokes for the session; the result of the division operation is rounded, if necessary, and displayed as an integer value.

- **Percentage of Fields With Verify Errors Attributed to Keyer**

Verify errors are attributed to the **keyer** if the final value of a field, after verification, is different from the value entered by the keyer.

The number of verify errors attributed to the keyer is divided by the total number of fields verified and displayed as a percentage with one decimal place.

- **Percentage of Fields With Verify Errors Attributed to Verifier**

Verify errors are attributed to the **verifier** if the final value in the field, after verification, is the same as that entered by the keyer, but was changed by the verifier before returning to the originally-keyed value.

The number of verify errors attributed to the verifier is divided by the total number of fields verified and displayed as a percentage with one decimal place.

- **Percentage of Fields With Any Verify Errors**

The number of verify errors attributed to the keyer and the number attributed to the verifier are added together and divided by the total number of fields verified and displayed as a percentage with one decimal place.

Change Views and Get Help

Change View

Cases in Sort Order

To toggle between cases in physical or sort order ...

From the **View** menu, select **Cases in Sort Order**, or press **Ctrl+Q**. A check mark appears next to the Cases in Sort Order menu item when cases are sorted by identification items. If there is no check mark, the cases appear in the physical order they occur in the data file.

Full Screen

To toggle between trees on left and full screen ...

From the **View** menu, select **Full Screen**, or press **Ctrl+U**. A check mark appears next to the Full Screen menu item when the display is in full screen mode. The setting of Full Screen affects ALL applications.

Get Help

Click  on the toolbar; or from the **Help** menu, select **Help Topics**; or press **F1**.

Most dialog boxes have a **Help** button.

To contact us about problems ...

Technical Assistance Staff
International Programs Center
U.S. Census Bureau
Washington, DC 20233-8860

Phone: 1 (301) 763-1451
Fax: 1 (301) 457-3033
E-Mail: cspiro@census.gov

Visit: www.census.gov/ipc/www/cspiro

When you contact us, please indicate the **version number** of the software you are using. You can obtain the version number from the top of the about box. From the **Help** menu, select **About**.

Files

Types of Files

CSEntry always manipulates one primary data file. This is the file to which you add, modify or verify cases. There may be other data files associated with an application, such as look-up files. The data and lookup files may have any extension as allowed by Windows.

CSPro data files are always ASCII text files. The format of this file is transparent to the data entry operator, as it has been defined in the data dictionary, created by the data entry application developer. However, index files are binary, and should never be modified directly.

There are three other files associated with a primary data file. They have the following file extensions:

.idx Index file (binary file)
.log Operator statistics file (ASCII file)
.sts Status file (ASCII file)

In addition, CSEntry manipulates the PFF file.

See also: Index Files (.IDX), Operator Statistics Files (.LOG), Status Files (.STS), [Define File Associations](#)

Index Files (.IDX)

- The IDX file is an index file. It keeps information about the case IDs and the physical location of cases in the data file. This helps CSEntry to manipulate the data file more quickly.
- The IDX file is a binary file. Do not modify this file outside the CSEntry environment.
- CSEntry automatically generates an IDX file when it creates a new data file. CSEntry then coordinates both files as cases are added, deleted or modified.
- When CSEntry opens a data file, it looks for the corresponding IDX file. If it does not find it, CSEntry automatically generates a new one. If you suspect, for any reason, that the IDX file has been corrupted, or does not match the data file, simply delete the IDX file and let CSEntry generate a new one.

Operator Statistics Files (.LOG)

The LOG file keeps track of operator statistics. It was designed to be easily imported into other software packages for custom processing. It has the following characteristics:

- ASCII text file
- fixed format
- comma-delimited
- CSEntry automatically generates a LOG file when it creates a new data file.
- When CSEntry opens a data file, it looks for the corresponding LOG file. If it does not find it, CSEntry automatically generates a new one.

Each record in the LOG file represents one data entry session in CSEntry. The record layout is as follows:

Position	Contents
----------	----------

1-3	Mode ('ADD' or 'MOD' or 'VER')
4	<comma>
5-36	Operator ID (as entered)
37	<comma>
38-47	Start date (mm/dd/yyyy)
48	<comma>
49-56	Start time (hh:mm:ss)
57	<comma>
58-65	End time (hh:mm:ss)
66	<comma>

67-74	Total time (End time – Start time) (seconds)
75	<comma>
76-83	Pause time (seconds)
84	<comma>
85-92	Number of cases written
93	<comma>
94-101	Number of records written
102	<comma>
103-110	Number of keystrokes
111	<comma>
112-119	Number of bad keystrokes
120	<comma>
121-128	Number of fields with errors attributed to keyer
129	<comma>
130-137	Number of fields with errors attributed to verifier
138	<comma>
139-146	Total number of fields verified

Status Files (.STS)

The status file keeps track of the last verified case. CSEntry uses this information to calculate the number and percent of verified cases in the data file.

The status file is an ASCII text file and therefore you can view and change it using any text editor such as Notepad or Wordpad. You can change the last verified case by changing the case IDs in that line in the file. You can reset all cases in a data file to "not verified" by deleting the line "[LastVerified]" and the line after it in this file. Deleting the entire file will have the same effect.

Manipulate this file with extreme caution!

Summaries

Menu Summary

The CSEntry menu is displayed across the top of the window. It provides access to most features used in CSEntry. The following menu options are available whenever the right-hand screen is displaying dictionary items.

File

Open Application	Open a new data entry application.
Open Data File	Open a new file for data entry in the current application.

Mode

Add Case	Switch to add mode.
Modify Case	Switch to modify mode.
Verify Case	Switch to verify mode.
Pause	Pause data entry (stops statistics clock)
Stop	Stop data entry in current mode.

Functions

Previous Screen	Skip to previous screen
Next Screen	Advance to next screen.

Insert Group Occ	Insert a new occurrence before this occurrence.
Insert Group Occ After	Insert a new occurrence after this occurrence.
Delete Group Occ	Delete this occurrence.
Sort Group Occ	Sort occurrences based on values of this field.
End Group Occurrence	Skip to next occurrence of group.
End Group	Skip to next field after this group.
End Level Occurrence	Skip to next occurrence of this level.
End Level	Skip to next level after this level.
Advance to End	Advance to the furthest point reached.
First Case	Go to first case in tree order.
Previous Case	Go to previous case in tree order.
Next Case	Go to next case in tree order.
Last Case	Go to last case in tree order.
Insert Case	Insert new case.
Delete Case	Delete selected case.
Find Case	Find case with particular identifier.
Insert Node	Insert a new level before the current level.
Add Node	Add a new level at the end of this level.
Delete Node	Delete the selected level within a case.
Previous Persistent	Go to previous persistent field.
Go To	Go to a particular field in the current case.
Interactive Edit	Search cases for range and/or edit errors (modify only)
View	
Operator Statistics	Show operator statistics windows.
Cases in Sort Order	Toggle between case tree in physical and sort order.
Full Screen	Hide the trees and show full screen view.
Data Values (verify)	Show all data values (verify only)
Options	
Interactive Edit Options	Change search options for interactive edit
Help	
Help Topics	Get help on the current application.
About CSEntry	Get information about the software.

Toolbar Summary

The CSEntry toolbar is displayed across the top of the window, below the menu bar. It provides quick mouse access to many features used in CSEntry.

Click To



Open a data file.











Add case



Modify case



Verify case

	Go to first case in tree order
	Go to previous case in tree order
	Go to next case in tree order
	Go to last case in tree order
	Pause the timer
	Stop adding or modifying
	View operator statistics
	Get help.

Keys Summary

Shortcuts specific to the Data Entry

Ctrl + A	Add cases to the data file
Ctrl + D	Open another data file.
Ctrl + M	Modify cases in the data file.
Ctrl + P	Pause entry operations to take a break.
Ctrl + Q	Show case list in sort or physical order.
Ctrl + S	Stop data entry operations.
Ctrl + T	Show operator statistics data file.
Ctrl + U	Toggle full screen on and off.
Ctrl + V	Verify cases in the data file.
Enter	Move forward to the next field.
Tab	Move forward to the next field.
Dn arrow	Move forward to the next field.
Up arrow	Move backward to the previous field.
Shift + Tab	Move backward to the previous field.
PgDn	Next screen (operator controlled only)
PgUp	Previous screen (operator controlled only)
/ (num keypad)	End group occurrence (operator controlled only)
Ctrl + /	End group (operator controlled only)
+ (num keypad)	Skip to (operator controlled only)
Ctrl+Home	Move to the first case in the file. (Modify only)
Ctrl+PgUp	Move to the previous case in the file. (Modify only)
Ctrl+PgDn	Move to the next case in the file. (Modify only)
Ctrl+End	Move to the last case in the file. (Modify only)
Ctrl + F2	Show data values. (Verify only)
F3	Insert another occurrence of these fields here.
Ctrl + F3	Insert another occurrence of these fields after this one.
F4	Delete this occurrence of these fields.
F5	Sort occurrences of these fields on this field.
F6	Go to a particular field.
F7	Go to previous persistent field.
F10	Advance to end of the case. (System controlled only)

F11 Start or continue interactive edit. (Modify only)
F12 Go to the next level occurrence at this level.
Ctrl + F12 Go to the next level occurrence at the level above this.

Shortcuts common throughout CSPro

Ctrl + F Find case with specified ids.
Ctrl + O Open an existing application.

Alt + F4 Quit the application.
F1 Show help contents and index.

Index

.

.IDX	19
.LOG	19
.STS	20

/

/ 14

A

Active Keys in Verify Mode	14
Add a Case	7
Add a Node	11
Add an Instance	11
Add Mode	1, 7
Advance to End	7, 15

C

Case Ids	10
Cases	2, 17, 18
View in Physical Order	17
View in Sort Order	17
Change Case Ids	10
Change View	17
Color of Fields	4
Ctrl+/	14
Ctrl+F12	14
Ctrl+F2	14

D

Define File Associations	6
Delete a Case	10
Delete a Node	12
Delete an Instance	11
Delete Occurrence	7, 11
Delete Row	11

E

End Group	14, 15
End Group Occurrence	14
End Level	15
End Level Occurrence	7, 15
Enter Data	7

F

F10.....	14
F12.....	14
F7.....	14
Field Colors.....	4
Fields	3
File	
Associations	6
Index (.IDX)	19
Operator Statistics (.LOG).....	19
Status (.STS).....	20
File Extensions	18
Files	18, 19
Find a Case	10
Finish a Case.....	9
Forms.....	3
Forms which Repeat.....	3
Full Screen.....	18
Function Keys	7

G

Get Help.....	18
Go To.....	7
Go to a Field	10
Gray Field	4
Green Field	4

H

Help	18
Hierarchical Questionnaires	2

I

Ids	10
IDX.....	19
Index	2
Index Files (.IDX).....	19
Insert a Case	10
Insert a Node	12
Insert Occurrence	7, 11
Insert Row.....	11
Interactive Edit	13
Introduction	1

K

Keyboard Summary.....	22
Keys.....	7, 8, 12
Verify Mode	14

L

Level Occurrences.....	2
------------------------	---

Levels	2
LOG	19

M

Menu Summary	20
Mirror Fields	3
Mismatch	14
Mode	
Add	7
Modify	9
Verify	14
Modes of Operation	1
Modify a Case	9
Modify Mode	1, 9, 12
Move Around	12
Move Around a Case	7
Move Around a Case in Modify Mode	12
Move Between Cases	10
Multiple Group	3

N

Next Case	10
Next Field	7, 9, 14
Next Form	7
Next Screen	8
Nodes	2

O

Open a Data File	5
Open an Application	5
Operator Controlled	8
Operator ID	5
Operator Statistics	16
Operator Statistics Files (.LOG)	19

P

Page Down	7
Page Up	7
Pause	1
Pause Data Entry	15
Persistent Fields	4
Physical Order	18
View Cases	17
Previous Case	10
Previous Field	7, 14
Previous Form	7
Previous Persistent	9, 15
Previous Screen	7, 8
Protected Fields	3

Q

Questionnaires.....	2
---------------------	---

R

Repeating Groups of Fields.....	3
Roster	3

S

Save a Case/Questionnaire.....	12
See Fields	14
Select a Case	10
Select a Node	11
Show Fields (Verify)	14
Skip.....	7
Sort Occurrences.....	7
Sort Order	17
View Cases	17
Statistics	16
Statistics File.....	19
Status Bar	7
Status Files (.STS).....	20
Stop	1
Stop Data Entry	15
STS.....	20
Summary	
Keyboard.....	22
Menu	20
Toolbar	21
Support	18
System Controlled	8

T

Toolbar Summary	21
Types of Files	18

U

Uncover Fields.....	14
Understand Operator Statistics	16
User Support.....	18

V

Verify	
Show Fields.....	14
Verify Cases	14
Verify Data	14
Verify Mode.....	1, 14
View Cases.....	17
Physical Order.....	17
Sort Order	17, 18
View Operator Statistics	16

Y

Yellow Field	4
--------------------	---